

[0044] ABSTRACT

[0045] A system for economically extending the effective operational range of an infrared remote control system having a remote control unit with an infrared transmitter, and a controlled device having an infrared receiver. The system includes

5 a first transmitter to receive IR signals from the remote control unit and transmit an RF output signal corresponding to the infrared signal received from the remote control unit. The RF signal is received by an RF receiver which generates a second IR signal corresponding to the received radio signal. The second IR signal is transmitted to and received by the IR controlled device. In some cases, the first IR control signal, and in

10 all cases, the RF, signal include information/data concerning the IR carrier frequency. This information/data of IR carrier frequency, instead of the RF transmission of the actual IR carrier frequency, permits a reduction of the RF bandwidth since the full frequency spectrum of possible IR carriers need not be transmitted, thus permitting amplitude shift keying (ASK) modulation to be used. The RF receiver decodes the

15 received signal and uses the information/data to configure a second IR control signal that is compatible with and transmitted to the controlled device.